Afroasiatic Linguistics

Wāw and Digamma

and

A Suprasegmental Feature of Length in Semitic

by

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WĀW AND DIGAMMA

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Initial *w* of Semitic became *y* in Hebrew (there are only three *w*-initial words in the Bible), yet in the Mishnaic language one finds words beginning in *w*. The hypothesis advanced here is as follows. The Greek koine had a facultative *w* at the beginning of various words, some of which were borrowed by Mishnaic Hebrew. Initial *w* became permissible again, and this rendered possible the back-formation of words beginning in *w* from "genuine" Semitic roots, although some of these may in fact be contaminated forms, influenced by similar Greek words.

From the scientific aspect the etymological portion of the apparatus is the most uncertain, dangerous and misleading. The simple, convenient and sure solution is for the compiler of a dictionary to disengage entirely from dealing with etymologies. . .research into the etymology of Mishnaic Hebrew is approximately in the same state as it was at the beginning of this century, and the greater part of it is defective. . .the sad fact is that the historical philology of the Semitic languages has not left us a firm legacy of a well-based etymological approach. . .[1]

Goshen-Gottstein, in his introduction to his projected synchronic dictionary of modern Hebrew, points here to the unsatisfactory state of Hebrew etymology, and especially to that of the "language of the sages," the dialect of the Mishna and related works. He draws attention to the fact that the etymological tradition in Hebrew has been directed chiefly towards solving problems of exegesis of the Biblical and Mishnaic literature, contrary to that of western languages, the emphasis being on an historical approach for modern, and a comparative approach for classical languages. Research into classical and modern languages has sought a point of origin of words for its own sake, unlike that into Hebrew which has always had one eye on some

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[1] M.H. Goshen-Gottstein, *Introduction to the Lexicography of Modern Hebrew* (Jerusalem 1969) pp. 160, 162.

obscure text. It will cast no aspersions on a useful reference aid to suggest too that
Mishnaic Hebrew boasts a dictionary which probably has more impossible etymologies than any
that has ever been published.[2] Curiously, such study as has been done has scarcely penetrated
current works of reference. Thus Avraham Even-Shoshan's large Hebrew dictionary *Ha-milon
he-hadash* under the date of 1966 can do no better than connect Hebrew WTYQ with the Arabic
WθYQ even though the word is more likely a loan from Greek (ἠθικός or perhaps εὐθικος) and
suggestions to that effect have long been in print,[3] although both scholars who made this
suggestion, intoxicated, like most Semitists, by Arabic, were inclined to think that the root
was ULTIMATELY Semitic.[4] The connexion between WTYQ and WθYQ cannot be genetic. Aramaic and
Hebrew both merged initial *w* with *y* at an early date,[5] presumably before the Aramaic/Canaanite
split, and had this morpheme existed (perhaps being fortuitously absent in the Bible) it
would have had an initial *y*. The word in Arabic is doubtless a loanword too, probably via
Aramaic, and all the derived forms from the supposed root *w* θ *q* are later coinages. It is
probable that the Arabic lexicon is full of such "spurious" roots--although in all likelihood
the process of triliteralizing foreign words has been proceeding continuously ever since
Semitic took the triliterum as its basic building block.

As far as Semitic is concerned the tendency to find a genetic connexion both with Chadic[6] and
with Indo-European[7] makes matters more complicated. Even though attempts so far must be
deemed to be inconclusive in detail, and the relatively recent invention of writing will make
hard data permanently unavailable, the likelihood of the correctness of the general thesis
that there is a genetic connexion in languages stretching from Iceland via the Middle East
and Northern India to the shores of Lake Chad is growing. This makes it all the more important
to do spadework to show what loans were taking place, since they can easily throw off syste-
matic reconstruction.

The hypothesis of this paper is as follows: 1. The Greek koine had a facultative *w* at the
beginning of various words related to the "Aeolian digamma."[8] 2. These words were borrowed
by Mishnaic Hebrew with the initial *w* thus recreating a position for *w* which had previously
been (almost) eliminated. 3. The spread in permissibility of initial *w* rendered possible the
back-formation of words beginning in *w* from "genuine" Semitic roots, although some of these
may in fact be contaminated forms, influenced by similar Greek words.

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[2]I refer to M. Jastrow, *A Dictionary of the Targumim, the Talmud Babli and the Midrashic
Literature* (London and New York, 1903; several times reprinted, most recently in 1972).

[3]See Jakob Levy, *Neuhebräisches u. chaldäisches Wörterbuch über die Talmudim u. Midraschim*
(Leipzig, 1876-89) vol.1, p. 506, and S. Krauss, *Griechische u. Lateinische Lehnwörter im
Talmud, Midrasch u. Targum* (Berlin, 1899) vol.2, p. 239.

[4]Typical of this tendency to regard Arabic as the ultimate source of Semitic etymology are
Guillaume in his studies of Hebrew and Al-Yasin in his studies of Ugaritic. The patent
archaisms of Arabic do not mean that it could not be innovative in other areas and receptive
to borrowing.

[5]Z.S. Harris, *Development of the Canaanite Dialects* (New Haven, 1939) p. 8.

[6]Joseph H. Greenberg, *The Languages of Africa* (Bloomington, 1963).

[7]Linus Brunner, *Die gemeinsamen Wurzeln des semitischen u. indogermanischen Wortschatzes*
(Berne and Munich, 1969).

[8]The koine is held to be derived from the Attic-Ionic dialects which lost *w* earliest. It is
entirely possible that this sound persisted in these dialects at a substandard level, and
remain unrecognized by the official spelling. See B.F.C. Atkinson, *The Greek Language*
(London, 1931) Chap. 7.

Let us first consider the status of initial *w* in Biblical Hebrew. Köhler-Baumgartner[9] lists sixteen entries beginning with *w*. Of these one is the letter itself, i.e. not really a word; six are proper names (Vaheb, Vayzatha, Vaniah, Vophsi, Vashni and Vashti), two of which (Vaniah and Vashni) are held by some to be textually doubtful and the rest of which are probably foreign; five are dubious or corrupt forms or references to other entries. This leaves only three morphemes, *wə* 'and' and its variants, which are listed under two entries;[10] *wālād* 'child' and *wāw* 'hook'. The existence of *wə* is explained by Harris on the basis that it never really occurred initially; since it always joins a pair, it is always in effect medial.[11] This explanation is somewhat difficult, since *wə* and its variants can clearly begin a discourse, e.g. Exodus 2.20 *wə ayyō* 'So where is he?' Possibly *wə* represents a vocalic sound *ū*, a change which predated the *w→y* shift, much as the "three alephs" of Ugaritic doubtless represent pure vowel sounds.[12]

The fact that *wāw* is also the name of the letter seems to me to be crucial in explaining the existence of this morpheme. However the letters of the alphabet originally got their names, whether with Gesenius we assume that the picture of the object became the sound of its first letter, or with Dunand we hold that the name was to suggest the letter in question,[13] an obvious problem would arise in creating a name for a letter the OCCURRENCE OF WHICH WAS RE-STRICTED TO NON-INITIAL. Accordingly an artificial name was created for *w*, being simply a repetition of its sound, *wāw*, perhaps patterned after *mēm* and *nūn* which have this pattern accidentally. On account of its arbitrary shape, it came to acquire the technical meaning 'hook', much as Greek *delta* came to denote a delta-shaped object such as the island at a river mouth.[14]

I would account for *wālād* as follows. This word occurs for certain only once in Gen. 11.30, and in some manuscripts of IISam. 6.23, where the phraseology is very similar. In both instances it denotes an offspring irrespective of sex. Now Arabic possesses such words rather commonly, e.g. *ᶜarūs* may mean 'bride' or 'bridegroom', *walad* may mean 'boy' or 'girl'. In Hebrew, however, the "native" word is specific as to sex: *yɛlɛd* can only mean 'boy',[15] even though the plural can mean 'boys and girls', just as *ben* means specifically 'son' while *bānīm* can mean 'sons and daughters'. Such a situation exists elsewhere. In Spanish *rey* means 'king', but the plural may mean 'king and queen'; *padre* means 'father', but *padres* can mean 'father and mother'. Accordingly *wālād* was borrowed from another Semitic language which had retained the earlier non-specific use of the word. So *wālād* in Biblical Hebrew must be classified as a later dialect loan--similar to the proper names. The loan here fills a semantic lack in the borrowing language, occasioned by a development in Hebrew whereby the unmarked form of sex-differentiated items became specifically male. In this way we can under-stand the ketib *naᶜar* (Gen. 24.14 etc.) which the punctators corrected to *naᶜᵃrā* in accordance with later Hebrew usage. A similar example in English of the phonetic situation is a morpheme such as *jaune brilliant* (a kind of artist's paint) which begins with a phoneme [ʒ] which is distinctive in English, but occurs initially only in one or two words which have not been anglicized. Once the word *wālād* exists, the Mishnaic WLDNY 'prolific' is readily formed by

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[9] *Hebräisches u. aramäisches Lexicon zum Alten Testament* (Leiden, 1967).

[10] Kohler presupposes a form *wan to explain the geminate after waw consecutive.

[11] Z.S. Harris, *loc. cit.* footnote 12.

[12] Joseph A. Reif, "The loss of consonantal Aleph in Ugaritic," *Journal of Semitic Studies* 4 (1959) pp. 16-20.

[13] David Diringer, *The Alphabet* (New York, 1968) vol. 1, p. 168.

[14] Cf. also the uses to which English letters are put--t-shirts, u-turns, etc. (Raimo Antilla, *An Introduction to Comparative and Historical Linguistics* (New York, 1972) p. 4.

[15] E.g. Gen 21.8, Ex 2.7 and frequently.

the addition of the adjectival ending.[16] A further indicator of the absence of initial *w*
in Biblical Hebrew is the word ?WYL which has no convincing etymology in Semitic and is to
be related to the Indo-European root seen in Lat. *vilis* 'worthless, mean'. The ? is prosthe-
tic and the form doubtless assimilated to the derogatory diminutive which is seen in ?LYL
'godling'. Biblical Hebrew, then, contains only loanwords and, the name of the letter
beginning in *w-*.

In Mishnaic Hebrew foreign origins have been proposed for a number of words beginning with *w-*.
Some of these will be freshly examined here and new ones proposed.

First it should be pointed out that there are several back-formations. The fact that words were
being freely loaned from Greek probably eased the formation of words such as WYTR, W^cD, WYDWY
all of which derive from stems well known in Biblical Hebrew and which had retained their con-
sonantally in medial position e.g. WYWTR, ?W^cD, WHTWDH. I suspect however that in the case
of the first root there is some contamination from ἐλεύθερος and its derivatives. This word
occurs dialectically (and in Modern Greek) as λεύτερος. Thus the Mishnaic WTRN 'liberal,
generous' has exactly the same connotations as ἐλευθέριος. WTR develops the meaning of 'forgo,
forgive' in the spirit of the corresponding Greek verb which may mean 'set free, clear,
release a debtor'.[17]

The second root gives the form W^cD as in the common form BYT W^cD 'place of assembly'.[18] The
form WY^cWD[19] which appears to be a verbal noun of the *pi'el* mode is in all likelihood an
artificial creation for the purpose of exegesis of Lam 2.15 and probably never existed as a
morpheme in the language until coined for the purpose of explaining this verse. The New
English Bible renders 'How shall I cheer you?' The root is connected in this instance with
w^cd and made to mean (as an exclamation) 'how greatly was I used to make appointments with you!'

WD?Y could be a back formation from the root WDH although the *w* does not appear consonantally
in Biblical Hebrew in forms (e.g. *hiph'il*) where there might be some semantic connexion.
Here are some examples of its usage:

HHW? DNHYT QMYH DRB HNYN? ?MR H?L HGDWL HGBWR WHNWR? WH?DYR WH^cZWZ WHYR?WY

HHZQ WH?MYS WHWD?Y WHNKBD.

'A certain man went down (to pray) in the presence of R. Hanina. He said: O God,
the great, mighty, fearsome, splendid, powerful, strong, fearless, *waddai*, and honor-
able.'[20]

ZKR WD?Y 'A *waddai* male' (as opposed to one of doubtful sex.)[21]

^cSM WD?Y 'A *waddai* sin-offering' (as opposed to one where it is not clear whether the
sin has been committed or not.)[22] I would suggest that this is borrowed from the Greek
verb οἶδα 'to know' which is derived from *Ϝοιδα itself related to Indic *vēda*.[23]

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[16] *Jerusalem Talmud, Baba Qama*, 5a.

[17] Liddell and Scott, *A Greek-English Lexicon* s.v. ἐλευθερόω.

[18] *Mishna Abot* 1.4 and frequently.

[19] *Midrash Eka Rabbati* to Lamentations 2.13.

[20] *Babylonian Talmud, Berakot* 33b.

[21] *Mishna, Arakin* 1.1.

[22] *Babylonian Talmud, Yoma* 85b.

[23] J.B. Hoffman, *Etymologisches Wörterbuch des Griechischen* (Munich, 1966) p. 226.

This suggests that the verb was still preserved in the koine with an initial *w-*, which was probably facultative, hence its disappearance in the orthography, but was heard so by Aramaic speakers. Hence the meaning is 'known' or 'certain'. In the first usage it may well be directly equivalent to Greek εἰδώς 'one who knows' and hence mean 'knowing, omniscient' as applied to God.[24]

It has long been suspected that the word *wst* meaning 'menstruation' is connected with Greek ἔθος, but the crucial point, that it is a CALQUE has been missed. Thus Krauss in 1899 made this derivation,[25] expressing some surprise that the word does not seem to occur in this meaning in the classical Greek. In the German edition of Chanoch Albeck's work on the Mishna[26] published in the same city as Krauss' work, seventy-eight years later the word is still flagged with a question mark.

In Hebrew the word for 'way' (ʿRḤ,DRK) is used as a sexual euphemism:

DRK NŠYM LY   'The way of women is upon me' (Gen. 31.35)

ʿRḤ KNŠYM   'Sarah had ceased to have the way like women' (Gen. 18.11)

DRK GBR BʿLMH 'The way of a man with a maid' (Pr. 30.19)

The existence of this euphemism was well known to the Jewish sages, since R. Jochanan thus understood Gen. 6.12 HŠḤYT ʿT DRKW where it is not so clear that this euphemism is intended.[27] Accordingly ἔθος or the similar word used by the Septuagint in the Gen. 18.11 passage came to mean 'menstruation' in the mouths of Greek speaking Jews and was borrowed in this sense into Mishnaic Hebrew with metathesis. This word was pronounced in Greek *weθos* from *σϝεθος.[28] These comments on the phonetic and semantic development of the word should confirm the etymology of this word already suggested by Levy in 1866.[29] The word does in fact occasionally occur in Mishnaic Hebrew in a sense much closer to the original Greek meaning:

KK HWʔ WSTW ŠL PLWNY MGRŠ ʔT NŠYW

'Such is the *ethos* of so-and-so who divorces his wives.'[30]

I propose that WRYD 'vein, nerve' is a loanword from Greek ἀρτηρία and hence is related to English *artery*. According to Liddell and Scott s.v. ἀρτηρια is contracted from ἀερτηρία which is connected with ἀείρω 'attach'. ἀείρω itself is derived from *ἀϝερίω. Accordingly we may suppose the original form to have been *awerteria* which with metathesis and vowel loss gave *werret* and hence WRYD.[31] The development would then be *awerteria* > *werter* > *werret* >

[24]Cf. the frequent Koranic appelations ʿLYM, XBYR.

[25]*Op. cit.* vol. 2, p. 237.

[26]P. 375.

[27]MLMD ŠHRBYʿ BHMH ʿL ḤYH WḤYH ʿL BHMH WHKL ʿL ʔDM WʔDM ʿL HKL
'This verse teaches that they brought about the copulation of male domestic animals with female wild animals, of male wild animals with female domestic animals, of both types of animals with woman, and of man with both types of animals.' *Babylonian Talmud, Sanhedrin* 108a. A similar explanation is given in Midrash Genesis Rabba 26.8 by R. Azariah.

[28]Hoffman, *op. cit.* p. 70. H. Frisk, *Griechisches Etymologisches Wörterbuch* (Heidelberg, 1960) vol.1, p. 449 sets up a *Grundform* *ϝέθος.

[29]Jakob Levy, *Chaldäisches Wörterbuch über die Targumim. . .*(Leipzig, 1867-68) s.v.

[30]*Mishna, Nedarim* 9.9.

[31]Frisk, I.155 gives *α(ϝ)ερ-τηρ.

werēd. The corresponding words in Arabic and Syriac must also be loans from the same source, since the connexion of the Arabic word (meaning 'jugular vein') with the root WRD is very tenuous. It is possible that popular etymology has also played a part in the development of the word. The voicing of *t* in an indisputable loanword is seen in τύπος 'model' which occurs in the Mishnaic Hebrew as a doublet, the unvoiced form ṬWPS meaning 'formula' and the voiced form DPWS meaning 'mould'. Probably what happens in such a case is that the Greek voiceless stop is different in articulation from the nearest available Hebrew-Aramaic stop and may therefore appear to be voiced. The word is borrowed in one sense by a group who hear it unvoiced, and in another sense by a group who hear it voiced, and then the groups borrow from one another. In any case this does establish the possibility of a Greek *t* being heard as voiced and rendered accordingly.

The word WŠṬ is connected by Krauss with ἱστός 'mast'[32] in connexion with an obscure phrase used as a comparison to express the unpleasantness of croup in Babylonian Talmud, Ber. 8a. Whatever that particular phrase may mean, the word normally means 'food-pipe', and ἱστός would not seem an appropriate source for this meaning. I would suggest that the word is to be connected with Greek οἰσοφάγος 'gullet'. The origin of the Greek word is disputed, most connecting it with οἴσω the suppletive future form (itself obscure in origin) of φέρω 'carry' plus φαγεῖν 'to eat', i.e. 'food-carrier',[33] The Oxford English Dictionary s.v. *oesophagus* believes this to be impossible, and comments that the word ought properly to mean 'eater of osiers', even though this makes no sense. WŠṬ would seem to be formed from the first part of the compound (i.e. the 'carrying' part) and the -*t* is derived from some related word such as οἰστός 'that which can be borne', in a transferred sense 'endurable'. Actually the meaning of the Greek word may well be 'osier which consumes'; the pipe being compared to the osier on account of its being long and thin. Hebrew uses the word QNH 'reed' to mean the windpipe which is a similar organ.

The form WṬYB occurs once only in the phrase ʿD ŠYMWT WṬYB 'until the *waṭīb* dies'.[34] The passage declares that in the event a woman becomes menstruous during intercourse, her husband must wait until detumescence before withdrawal so as not to derive pleasure therefrom, since this would transgress the law prohibiting intercourse during the menses. This word is the reading of the *Arukh*.[35] Current editions read WYWBYH which in accordance with Rashi's commentary ad loc. would mean 'until he (or it) dies, AND IT IS WELL WITH HIM.' This is forced and improbable. Kohut also quotes the reading WYWṢ? 'and he withdraws' and ?BYṬ which appears to be a variant of WṬYB and is equally obscure. The vocalization *waṭyāb* proposed by Kohut and adopted by Kasowski[36] is surely incorrect. Kohut reaches this by quoting the Arabic *al-?aṭyabaːni* 'the best two things' one of which by a poetic conceit may be the vulva. From this he extrapolates the word *ʿaṭyabu* and transfers the Arabic vocalization to the Hebrew. There is absolutely no basis for these procedures, and one would further expect the spelling WṬYYB if the *yōd* were consonantal. According to the principle of *lectio difficilior* we ought to accept the existence of this word, but it must be said to be highly doubtful. If it exists at all, it can perhaps be connected with τύλος, which means basically 'swelling' and various derived meanings such as 'boil' and 'phallos'. The Latin words *tumeo* 'to swell' and *tumor*, *tuber* are all connected with this word. The Greek word is connected by Hofmann with the supposed form **tul- *tyel-* and **tum-* all of which mean 'swell' or 'be excited'. The Arabic WṬB 'milk-skin' and hence 'large breast' would also seem to belong in the same semantic category of 'swell'.

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[32] Krauss, *op. cit.* s.v.

[33] Cf. Frisk, II 368.

[34] *Babylonian Talmud, Shebuot*, 18b.

[35] *Aruch Completum* ed. Alexander Kohut (Vienna, 1878) s.v.

[36] Chaim J. Kasowski, *Thesaurus Talmudis* vol. 12 (Jerusalem, 1963) p. 9.

The word WTYQ has been connected with three Greek words εὐθικός and εὐθύδικος (Levy)[37] and ἐθικός (Krauss).[38] Krauss probably intended to write ἠθικός. The latter is doubtless the origin of the word, going back to the same Indo-European morpheme as ἔθος , and similarly having a facultative *w* in pronounciation. εὐθικός appears to be a much less common word related to εὐθύς 'straight, straightforward' the antecedents of which are obscure. εὐθύδικος ('judging righteously') seems equally gratuitous when ἠθικός covers the meanings quite well. It would appear from the usage of Mishnaic Hebrew that a *wāθīq* was one who behaved with particular scrupulosity. Thus the *wāθīqīm* were particular about the manner of reciting the morning prayer;[39] *wāθīq* is applied to Abraham among such terms as 'select', 'beloved', 'faithful'.[40] The term is applied to a particular scholar who was able to prove by logical deductions that an unclean animal was clean.[41] Probably here *wāθīq* does not refer to his scholarly acumen, but rather identified him as happening to belong to the ultra-orthodox, the *wāθīqīm*.

WYTQ, WTQ generally in the plural (?) with suffix -*īn* appears to denote some kind of malady.[42] Levy derives it from some form of φθίσις 'consumption', which seems very distant phonetically.[43] Krauss connects it with ἑκτική which seems difficult on account of the rough breathing.[44] I would tentatively suggest a connexion with Latin *vaticinare* which may mean 'to rave'.[45] Hence the "plural" form would be basic.

Two other morphemes containing *w* elements may be mentioned here in conclusion. ʔWYR from Greek ἀήρ contains the *w* glide which is retained in the Aeolian αὐήρ. This again suggests that the koine retained *w* in places where the official spelling had discarded it. ʔWWZ 'goose' (in Syriac *wāzā* without the prosthetic element) is to be connected with the Indo-European morpheme which appears in old high German as *gans*, Latin *ans*[er]. The jump to Semitic involves the frequent initial *g/w* alternation and assimilation of *n*.[46]

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[37]Levy, *Chaldäisches Wörterbuch* , s.v.

[38]Krauss, *op. cit.*, vol. II, s.v.

[39]*Babylonian Talmud, Berakot* 96.

[40]*Ibid.*, ʕErubin 105a.

[41]*Ibid.*, 13b.

[42]*Babylonian Talmud, Gittin* 70a, *Nidda* 17a.   It occurs in mixed Hebrew-Aramaic passages.

[43]Levy, *Neuhebräisches u. chaldäisches Wörterbuch* s.v.

[44]Krauss, *op. cit.* s.v.

[45]In Cicero *Oratio Pro Sestio* 10.23 *vaticinari* is parallel to *insanire*.

A SUPRASEGMENTAL FEATURE OF LENGTH IN SEMITIC

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It is proposed that at a preliterate stage of development Semitic verbs appeared in different modes by lengthening each of the first five phonemes. Sound change had obscured the regularity of this sytem by the time Hebrew and Arabic were reduced to writing, especially in Arabic IV and VII and their reflexes in other languages. Since nouns also used the length feature to express definiteness (initial consonant length being original) and plurality (sound plural being nunation + length) it may be said that Semitic possessed a length morpheme which varied in its function in accordance with its position in the word.

TABLE OF CONTENTS

INTRODUCTION

Paradigms, like most "historically transparent forms"[1] are subject diachronically to two conflicting trends--sound shifts which strike with "cataclysmic force"[2] and create irregularities, and analogical adjustments which regularize forms that fit into similar syntactic slots but differ phonologically. Thus, the Portuguese reflex of Latin *sum* is endowed analogically with a vowel making it look like the reflex of Latin *sto* which has the vowel "normal" at this point in the paradigm, hence *sou*, *estou*, without the nasalization one might have otherwise anticipated in the first form. In contrast, sound change takes forms exhibiting the "regular" endings in Latin *feci*, *fecit* and produces the irregular *fiz*, *fêz*.

It is the thesis of this paper that one may posit an original "regular" feature in the Semitic paradigms of the modes of the verb that has been buried by cataclysmic sound change. This feature, if it can be established, may have interesting theoretical implications.

It is proposed that two major morphemes were used to differentiate the modes in Semitic, a *t* prefix (which may by regular metathesis become an infix) and which will not be further considered at this time, and a LENGTH element[3] which may be regarded as segmental in the sense that it occurs in a minimal pair as a segmental phoneme (Ar. *qatala/qattala*) but as suprasegmental in the sense that, like accent, it may vary in position in a word, injecting a nominally consistent semantic content. For our purpose it would not seem important whether the item was in fact LENGTH, i.e. a difference in the time that a particular articulatory position is held[4] or gemination, i.e. a cluster of two occurrences of the same phoneme.[5] The term length will be used here without deciding this question.

The reconstructed basic verb forms are taken to be: **qatala* (perf.) and **yaqatala* (impf.)[6] with vowels *i* or *u* also possible for V_2 with semantic difference.

We posit that Semitic formed aspects of its verbs by LENGTHENING ANY OF THE FIRST FIVE PHONEMES, consonantal or vocalic, of the basic verb form, with adjustments for other forms. Two of these are very obvious. Others are obscured by sound change.

1. LENGTH OF C_2: *qat:ala*

Examples of the semantic input of lengthening C_2, which may be privative, intensive or extensive are as follows:

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[1] Yakov Malkiel, "Paradigmatic Resistance to Sound Change," *Language* 36 (1960) p. 281.

[2] *Ibid.* p. 331.

[3] There is some evidence for such a morpheme in Dravidian also. See P.C. Ganeshsundaram, "Morphemic Values of Consonants in Tamil," *Indian Linguistics* 16 (1955). "Perhaps the form *koṭṭu* from *koṭu* 'give' means 'give with a vengeance'." This curiously resembles the Semitic intensive form which is marked by length of the middle consonant of the root. Also the geminate past tense marker in Tamil tends to render the verb transitive (-*tt*-). This undoubtedly originally marked a *t:/t* distinction rather than the modern colloquial lenited *t/d* distinction.

[4] C.F. Hockett, A *Manual of Phonology* (Baltimore, 1955) p. 39.

[5] *Ibid.* p. 232. The macron or double consonant is used for orthographic length and the colon for phonetic length.

[6] I do not discuss here the distinction between *yaqatulu* and *yaqtulu*. Semitic may originally have been monotemporal with sound change leading to specialized forms, as well as the placing of the affix after, rather than before, the verb.

Heb.   *šāqal* (< *šaqal*) 'he threw stones at'

šiqqel (< *šaq:al*)[7] 'he removed stones from'

šabar (< *šabar*) 'he broke'

šibbēr (< *šab:ar*) 'he smashed'

Arab.   *fariħa* 'he was glad'

farraħa 'he gladdened'

kasara 'he broke'

kassara 'he smashed'

2. LENGTH OF V_1 : *qa:tala*

For V_1 length the semantic input is conative:

Heb.   *šābab* (< *šabab*) 'he surrounded'

šōbeb[8] (< *šābib*) 'he protected'

Arab.   *sabaqa* 'he overtook'

sabbaqa 'he raced'

jalasa 'he sat'

jallasa 'he sat next to'

It will be observed (1) that the semantic input in classical Hebrew and Arabic is variable and cannot be defined exactly even by intuitional criteria. Even assuming that there was some original meaning to the length of C_2 or V_1 in Hebrew and Arabic or their protolanguage, semantic change in individual lexical items has obscured it, just as the phonological unity has been obscured; (2) in Hebrew, length of C_2 and length of V_1 have become largely suppletive, the C_2 length being standard for most verbs, and V_1 length standard for verbs whose roots are of the shape $C_1 w C_2$, $C_1 y C_2$ or $C_1 C_2 C_2$. Verbs in classical Hebrew which exhibit both forms, e.g. *qwm* (long consonant Psalms 119.106, long vowel Isaiah 58.12), are displaying different dialects of the language or a dialect borrowing situation.

It is interesting to observe that the interpretation of the Jewish sages of Deuteronomy 26.5 ˀRMY ˀWBD ˀBY 'An Aramean tried to kill my father' (as in Targum Onkelos ˀRˀH Bᶜˀ LˀWBDˀ YT ˀBˀ   ) rather than 'A wandering Aramean was my father' shows clearly an awareness of the force of this conative form (*ˀōbēd* < *ˀa:bid*) even though it may be preferable to interpret the form in this particular context as the homonymous participle of the simple mode: ˀBD 'wandering'.

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[7] By assimilation of first vowel to second alternative vowel *i*. For a similar drift in Arabic see C.A. Ferguson, "The Arabic Koine" *Lg.* 35 (1959), 619; on the character of this change see H.M. Hoenigswald, "Graduality, Sporadicity and the Minor Sound Change Processes," *Phonetica* 11 (1964), 202-215. *i* > *ē* is a regular late Hebrew development (ᶜ*ēz* < *ˀizzu*, ˀ*ābēl* < *ˀabilu* etc.).

[8] Not attested in OT in the perfect; there are several examples of the imperfect. On *a:* > *o:* see Z.S. Harris, *Development of the Canaanite Dialects* (New Haven, 1939), 43-45.

3. LENGTH OF C_1: q:$atala$

Less obvious is the fact that the length of C_1 gives Hebrew nip^cal and Arabic VII:

Ar. $qatala \rightarrow {}^*q$:$atala > {}^*nqatala > (i)nqatala$

Heb. $qatala \rightarrow {}^*q$:$atala > {}^*nqatal(a) > {}^*inqatal > {}^*niqatal^9 > niqtal^{10}$

The basic sound change is C: $> nC$.[11] In Arabic there is a prosthetic vowel which is said to be elided if a vowel precedes; it would be more correct historically then to say that a vowel is inserted if no vowel precedes. Long consonants are phonologically possible at the beginning of words; Moroccan Arabic has them and in some cases they may represent an ancient Semitic form e.g. $ṣuf$, 'wool', $ṣ$:uf 'the wool' (see below).

In the Hebrew impf. $yiqqātēl$ the original consonantal length was retained, i.e. it is incorrect to say that "the n was assimilated," and in the imperative it shows up with a prosthetic i. Although this latter form is written with the graph for h, it is highly probable that this merely represents a vowel at the beginning as it often does at the end, i.e. $hqtl$ should be normalized $iqqātēl$. So Arabic initial $'alif$ without $hamza$ = Hebrew initial h.[12]

The semantic input of this length is reflexive/passive.

4. LENGTH OF V_2: $qata$:la

Length of V_2 gives Hebrew $hip^cīl$ and Arabic IV.

Ar. (impf.) ${}^*yaqatilu \rightarrow {}^*yəqati$:$lu$ (vowel centralized with shift of stress[13]) $> {}^*yəqti$:lu. The long vowel is again shortened by analogy with the other conjugations, and the semantic load is

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[9] By metathesis.

[10] V_2 is elided when C_3 is voweled and its syllable is accented. Cf. $'āmar$ but $'āmrā$, $ydabbēr$ but $ydabbrū$.

[11] At the beginning of a word: in the Hebrew imperfect the original length is retained. In Arabic n is brought in by analogy. The Hebrew imperative is a secondary formation from the imperfect. Forms such as Hebrew $bēhareg$ (Ez. 26.15) $lēhā'ōt$ (Ex. 34.24) point to the prosthetic nature of the vowel where there is no n. See the numerous cases cited in H. Bauer and P. Leander, *Historische Grammatik der Hebräischen Sprache des Alten Testamentes* (Hildersheim, 1965), 228.

[12] It seems likely that the h is used to represent "nothing," i.e. is a vowel bearer, elsewhere. Later Hebrew has $mō(h)ēl$ as the participle of the root $mūl$ which is quite on the lines of the Arabic participle of the type $qā'im$. It is probably an attempt to represent a dialect which had originally a glottal stop which became an $ōē$ glide. From this the other parts of a new verb $māhal$ appeared by back formation. Probably Aramaic forms like $bhet$ have a similar explanation.

[13] It seems to me that the vowel sign $damma$ of classical Arabic often represents a $šwa$ possessed by the classical language but which the orthography did not recognize. Thus the $damma$ of the diminutive form $C_1uC_2ayC_3un$ was probably a $šwa$. (It is thus represented in the fossils of this form in Classical Hebrew, e.g. $zə^cēyr$ 'very little'. See Paul de Lagarde, *Uebersicht über die in Aramaischen Arabischen und Hebraischen übliche Bildung der Nomina* (Goettingen, 1889), 85-87.) Also the imperfect of III and IV.

shifted to the first syllable. (Pf.) $*qata{:}la > *qta{:}la > *aqta{:}la$. The vowellessness[14] of C_1 was caused by the length of V_2 which has become short again by analogy with other conjugations and the semantic load is shifted to the first syllable. The presence of *hamza* is unexpected.[15]

Heb. $*qatila$ (alternate form of simple verb) $\rightarrow *qati{:}la > *qti{:}l(a) > iqti{:}l$. (Impf.) $*yaqati{:}lu > yaqti{:}l$ (vowel loss with change of stress.)

The semantic input is generally causative.

5. LENGTH OF C_3 : $qatal{:}a$

Length of C_3 gives the rare Arabic IX and also may explain certain Hebrew "adjectives" $*?aruk{:}a$ 'it was long' in a participial form to $?arok$ with change C:#>C#--but with length preserved in fem. and plur. where there was no apocope. Hebrew adjectives denoting colors are frequently of this form, and it may be noted that Arabic IX is largely restricted to this class.[16]

6. LENGTH OF TWO ELEMENTS

Sometimes more than one phoneme of the simple form was lengthened. This gives Arabic XI (length of V_2 and C_3) and explains some anomalous Hebrew forms--*nikkappēr* 'will be atoned' (Deut. 21.8), *hinnabb?ū* 'purported to be prophets' (Jer. 23.13) which have length of C_1 and C_2. The form $ngō^{\alpha}lū$ 'are polluted' (Is. 59.3), however, is best explained as an internal passive with length of $C_1 < *g{:}u?ila$ + plur. morpheme.

7. LENGTH IN NOUNS - DEFINITENESS AND PLURALITY

Definiteness was expressed in Semitic by a long first consonant, as suggested by Ullendorff:[17]

$*bayitúna$	'a house'
$*b{:}áyituna$	'the house'

The change of stress occasions the elision of the last syllable, explaining the lack of nunation in definite nouns in Arabic.[18] In Hebrew the sound change was #C:>#aC: and later #aC_1: and #$a{:}C_2$ and #eC_3 where C_1 = most consonantal phonemes, C_2 = some consonantal phonemes

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[14] I do not account here for vowellessness as opposed to centralization. The true situation in this regard, as symbolized by the supposed dual function of the Hebrew *šwa* needs further investigation.

[15] It is probably due to an early confusion with the morpheme of the "elative" as E.A. Speiser has noticed. The extensive forms in Semitic with prefixed *s-* or *š-* are probably also a combination of this form with an added morpheme. Cf. also the Talmudic 3d sing. masc. impf. in *l-* probably the combination of the morphemes *li-* and *ya-* which appears in Syriac as a dialect variant *ne-*.

[16] See W. Wright, *A Grammar of the Arabic Language* (Cambridge, 1896), 1:43.

[17] "The Form of the Definite Article in Arabic and other Semitic Languages," *Arabic and Islamic Studies in honour of Hamilton A.R. Gibb* (Leiden, 1965).

[18] *Contra* J. Kuryłowicz, "La Mimation et l'article en arabe," *Archiv Orientální* 18 (1950), 323-328.

e.g. *h*, and C_3 = some consonantal phonemes coupled with specified conditions of stress. Initial orthographic *h* again represents an initial vowel.

In Arabic the sound change was #C: > #(a)ℓC_1 and #(a)C_2:. The classical Arabic orthography bears on its face the fictions that (1) the *ℓ* is assimilated before "sun-letters" (C_2) when in reality it was never there; and (2) the *a* of *aℓ* is elided after vowels, whereas in reality the *a* or *i* is inserted prosthetically after consonants or at the beginning of a discourse.

This change must be seen as parallel to the change in the *nipᶜaℓ* above. *ℓ* and *n* must represent originally the same phoneme which dissimilated the long first consonant, and a dialect borrowing situation must be involved, the precise character of which we can only guess.[19]

Sound plurals and the dual are formed by vowel length in the noun suffix. In Arabic

Masc.	*xaːdimuna*[20]	> xaːdimuːna	'male servants'
Fem.	*xaːdimatuna*	> xaːdimaːtun	'female servants'

In Hebrew

Masc. sing.	*maℓakima > *maℓki > *maℓk > *māℓek > mēℓek	'king'
Fem. sing.	*maℓakatima > *maℓkati > maℓkā	'queen'

give rise to

Masc. plur. *maℓakiːma > mℓākīm

Fem. sing. *maℓakaːtima > *maℓakaːt > mℓākōt

The dual represents a specialized use of the singular accusative with length (*-aːni* with dissimilation of the last vowel). The oblique form in *-ayni* is perhaps a dialect variant (cf. Hebrew *dōtān/dōtayn* Gen. 37.17). Hebrew fossilized forms like *yōmām* 'by day', *šilšōm* 'day before yesterday' represent another specialized use of the accusative ending plus length.

Many broken plural patterns (*ʔafᶜāℓ, fuᶜūℓ, fiᶜāℓ*) display a long vowel before the final consonant. This suggests that while sound plurals lengthened the vowel of the noun ending (*-uma, -atuma* etc.) broken plurals lengthened the vowel of the body of the noun. This is seen in a straightforward way rarely e.g. *baℓadun* (*baℓaduna*) 'city' plur. *biℓādun* (*baℓaːduna*). The alternative plural *buℓdānun* is to be derived from a form with a lengthened accusative morpheme (*baℓadanu*) with a change in the first vowels similar to that proposed for form IV of the verb above. Nunation is added analogically. A plural such as *kiℓābun* 'dogs'[21] suggests as sing. *kiℓabuna* or *kaℓabuna*. This pattern exists as in *ᶜinabun* 'grape' and may have been a doublet of the standard sing. *kaℓbun*.

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[19] For example, let there be a dialect A in which the C_1: morpheme was in use for verbs but not for nouns, definiteness being expressed by another morpheme or not expressed. In verbs the C_1: > nC_1 change takes place. The speakers then come into contact with speakers of higher dialect B which has C_1: in both nouns and verbs, but the dissimilatory *n* phone is palatalized and heard by speakers of A as *ℓ*. This "definite article" is then borrowed and contrasts with the *n* of the verb.

[20] Reconstructed noun endings are *-una* or *-uma* (nominative) *-ana* or *-ama* (accusative) and *-ina* or *-ima* (genitive.)

[21] I suspect that the initial *kesra* in Arabic sometimes represents no vowel, i.e. a cluster, a situation not admitted by the traditional grammarians. Tamil orthography contains a similar fiction.

FIRST NORTH-AMERICAN CONFERENCE ON SEMITIC LINGUISTICS

Santa Barbara, California
March 24-25, 1973

The first North-American Conference on Semitic Linguistics was organized by Robert Hetzron (University of California, Santa Barbara) with the cooperation of Giorgio Buccellati (University of California, Los Angeles) and Joseph L. Malone (Barnard College--Columbia University). The purpose of the Conference is to promote the interest of Semitists in the various modern currents of linguistics. The full list of the papers presented at the 1973 Conference is given below. Those papers which have been submitted and accepted for inclusion in *AAL*, like the present one, are being published within the framework of the journal.

A. Semitic and its Afroasiatic Cousins

1. Carleton T. Hodge (University of Indiana), *The Nominal Sentence in Semitic* (=*AAL*2/4).
2. G. Janssens (University of Ghent, Belgium), *The Semitic Verbal System* (=*AAL* 2/4).
3. J. B. Callender (UCLA), *Afroasiatic Cases and the Formation of Ancient Egyptian Verbal Constructions with Possessive Suffixes* (=*AAL* 2/6).
4. Russell G. Schuh (UCLA), *The Chadic Verbal System and its Afroasiatic Nature* (forthcoming in *AAL*).
5. Andrzej Zaborski (University of Cracow, Poland), *The Semitic External Plural in an Afroasiatic Perspective* (forthcoming in *AAL*).

B. Ancient Semitic Languages

6. Giorgio Buccellati (UCLA), *On the Akkadian "Attributive" Genitive* (forthcoming in *AAL*).
7. Daniel Ronnie Cohen (Columbia University), *Subject and Object in Biblical Aramaic: A Functional Approach Based on Form-Content Analysis* (=*AAL*2/1).
8. Richard Steiner (Touro College, N.Y.), *Evidence from a Conditioned Sound Change for Lateral ḍ in Pre-Aramaic.*
9. Stanislav Segert (UCLA), *Verbal Categories of Some Northwest Semitic Languages: A Didactical Approach* (=*AAL*2/5).
10. Charles Krahmalkov (University of Michigan), *On the Noun with Heavy Suffixes in Punic.*

C. Hebrew

11. Joseph L. Malone (Barnard College--Columbia University), *Systematic vs. Autonomous Phonemics and the Hebrew Grapheme "dagesh"* (=*AAL*2/7).
12. Allan D. Corré (University of Wisconsin, Milwaukee), *"Wāw" and "Digamma"* (forthcoming in *AAL*).
13. Harvey Minkoff (Hunter College, N.Y.), *A Feature Analysis of the Development of Hebrew Cursive Scripts* (=*AAL*1/7).
14. Raphael Nir (Hebrew University, Jerusalem), *The Survival of Obsolete Hebrew Words in Idiomatic Expressions* (=*AAL* 2/3).
15. Talmy Givón (UCLA), *On the Role of Perceptual Clues in Hebrew Relativization* (=*AAL*2/8).
16. Alan C. Harris (UCLA), *The Relativization "which that is" in Israeli Hebrew.*

D. Arabic

17. Ariel A. Bloch (University of California, Berkeley), *Direct and Indirect Relative Clauses in Arabic.*
18. Frederic J. Cadora (Ohio State University), *Some Features of the Development of Telescoped Words in Arabic Dialects and the Status of Koiné II.*

E. Ethiopian

19. Gene B. Gragg (University of Chicago), *Morpheme Structure Conditions and Underlying Form in Amharic* (forthcoming in *AAL*).
20. C. Douglas Johnson (University of California, Santa Barbara), *Phonological Channels in Chaha* (=*AAL* 2/2).
21. Robert Hetzron (University of California, Santa Barbara), *The t-Converb in Western Gurage and the Role of Analogy in Historical Morphology* (=*AAL*2/2).

F. Beyond Afroasiatic

22. Gilbert B. Davidowitz (New York), *Cognate Afroasiatic and Indoeuropean Affixes: Conjugational Person-Markers.*

SECOND NORTH–AMERICAN CONFERENCE ON SEMITIC LINGUISTICS

Santa Barbara, California
March 25-26, 1974

The second North-American Conference on Semitic Linguistics was held in Santa Barbara, in conjunction with the annual meeting of the American Oriental Society, on March 25-26, 1974. It was organized by Gene Gragg (University of Chicago), with Robert Hetzron being in charge of local arrangements. The full list of the papers presented at the 1974 Conference is given below; those papers which have been submitted and accepted for inclusion in *AAL*, like the present one, are being published within the framework of the journal.

A. Hebrew

1. Richard Steiner (Touro College, N.Y.), *On the Origin of the* heder ∿ h^{a}dar *Alternation in Hebrew.*
2. Talmy Givón (UCLA), *Verb Complements and Relative Clauses: A Diachronic Case Study in Biblical Hebrew* (=*AAL* 1/4).
3. Jack Zeldis (California State University, Fresno), *Bevakaša: A Study of Complementation in Modern Hebrew.*
4. Alan Harris (UCLA), *The Number Two / Collapsing: Two Problems in a Synchronic Description of Modern Hebrew.*

B. Aramaic

5. Yona Sabar (UCLA), *The Impact of Israeli Hebrew on the Neo-Aramaic Dialect of the Jews of Zacho in Israel.*

C. General Semitic

6. Alan Corré (University of Wisconsin, Milwaukee), *The Suprasegmental Feature of Length in Semitic* (forthcoming in *AAL*).

D. Arabic

7. Ariel Bloch (University of California, Berkeley), *Pronoun Externalization in Arabic.*
8. Aharon Barnea (University of California, Berkeley), *Reference to Time, Space and Other Types of Quantification in the City Dialect of Gaza* (=*AAL* 2/3).
9. Robert Hetzron (University of California, Santa Barbara), *Origin of Case-Government in Arabic Numerals.*

E. Ethiopic

10. Gene Gragg (University of Chicago), *Remarks on the Development of the Broken Plural System in Northern Ethiopic Semitic.*

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